

```

5'      9      27      36      45      54
      A AGG GGC GCT GCC AGC CTC CGG GCC TCA GGG TGT TCC GGG GAG CGG CGC

      63      81      90      99      108
      CCC GGG TCT CTG GGC CCA CCC GCC CCG GGC CTC CGA GAG TGG GGG CTG CGC

      117     126     135     144     153     162
      CCG CGG GGT CAG ACA CCT GTT CGG CCC GCC CCG GCG TGG TCG CCG GGG GCC AGG

      171     180     189     198     207     216
      ATG AAA GTG ACC GTG TGC TTC GGC AGG ACG GGC ATC GTG GTG CCC TGC AAG GAG

      --- --- --- --- --- ---
      M K V T V C F G R T G I V V P C K E

      225     234     243     252     261     270
      GGC CAG CTG CGC GTC GGC GAG CTC ACC CAG CAG GCG CTG CAG CGG TAC CTG AAG

      --- --- --- --- --- ---
      G Q L R V G E L T Q Q A L Q R Y L K

      279     288     297     306     315     324
      ACC CGG GAG AAG GGT CCT GGT TAC TGG GTG AAG ATT CAT CAC TTA GAA TAT ACA

      --- --- --- --- --- ---
      T R E K G P G Y W V K I H H L L E Y T

```

FIGURE 1A

FIGURE 1B

603	612	621	630	639	648
CCA GGC CCA CCT GCT GAT ACC CAG CCA AGC GGT TCA CAC CCT GGT GGC CAG AGT					
P G P P A D T Q P S A S H P G G Q S					
657	666	675	684	693	702
CTG AAA CTG GTT GTT CCA GAT TCC ACG CAG AAC TTG GAA GAC AGA GAA GTT TTG					
L K L V V P D S T Q N L E D R E V L					
711	720	729	738	747	756
AAT GGT GTA CAG ACA GAA CTA CTA ACT TCG CCA AGA ACT AAG GAC ACA TTG AGT					
N G V Q T E L L T S P R T K D T L S					
765	774	783	792	801	810
GAT ATG ACA AGA ACA GTG GAG ATT TCT GGG GAA GGA GGC CCA TTG GGA ATA CAT					
D M T R T V E I S G E G G P L G I H					
819	828	837	846	855	864
GTA GTG CCC TTC TTT TCA TCT CTG AGT GGA AGG ATT CTA GGA CTC TTC ATC CGA					
V V P F F S S L S G R I L G L F I R					

FIGURE 1C

873	882	891	900	909	918
GGC ATT GAA	GAC AAC AGC AGG	TCC AAG CGG	GAG GGA CTA TTT	CAC GAA AAT	GAA
---	---	---	---	---	---
G I E D	N S R S	K R E G	L F H E	N E	
927	936	945	954	963	972
TGT ATT GTA	AAA ATC AAC AAT	GTG GAT CTC	GTA GAC AAA ACC	TTT GCT CAG	GCT
---	---	---	---	---	---
C I V K	I N N V	D L V D	K T F A	Q A	
981	990	999	1008	1017	1026
CAA GAT GTC	TTC CGC CAG GCA	ATG AAA TCT	CCA AGT GTG	CTC CAC	GTG CTT
---	---	---	---	---	---
Q D V F	R Q A M	K S P S	V L L H	V L	
1035	1044	1053	1062	1071	1080
CCT CCA CAA	AAC CGT GAA CAG	TAT GAA AAG	TCA GTC ATT	GGC TCT CTT	AAC ATT
---	---	---	---	---	---
P P Q N	R E Q Y	E K S V	I G S L	N I	
1089	1098	1107	1116	1125	1134
TTT GGT AAT	AAT GAT GGC GTT	TTG AAA ACC	AAA GTG CCG	CCT CCT	GTC CAT GGA
---	---	---	---	---	---
F G N N	D G V L	K K T K	V P P V	H G	

FIGURE 1D

1143	1152	1161	1170	1179	1188
AAA TCG GGA CTA AAG ACA GCA AAT CTC ACA GGA ACC GAT AGT CCT GAA ACA GAT					
---	---	---	---	---	---
K S G L K T A N L T G T D S P E T D					
1197	1206	1215	1224	1233	1242
GCA TCA GCT TCC CTG CAA CAA AAC AAG AGT CCC CGA GTA CCA AGG CTG GGA GGA					
---	---	---	---	---	---
A S A S L Q Q N K S P R V P R L G G					
1251	1260	1269	1278	1287	1296
AAA CCA TCC TCT CCC TCA CTC TCG CCT CTC ATG GGA TTT GGC AGC AAT AAA AAT					
---	---	---	---	---	---
K P S S P S L S P L M G F G S N K N					
1305	1314	1323	1332	1341	1350
GCA AAG AAA ATT AAG ATT GAC CTA AAG AAA GGC CCT GAA GGA CTT GGT TTC ACT					
---	---	---	---	---	---
A K K I K I D L K K G P E G L G F T					
1359	1368	1377	1386	1395	1404
GTG GTT ACC AGA GAC TCT TCC ATA CAT GGT CCC GGT CCC ATT TTT GTA AAA AAC					
---	---	---	---	---	---
V V T R D S S I H G P G P I F V K N					

FIGURE 1E

1413	1422	1431	1440	1449	1458
ATT TTA CCA AAG GGA GCA GCA ATA AAA GAT GGC CGC CTA CAA TCA GGG GAC AGA					
I L P K G A A I K D G R L Q S G D R					
1467	1476	1485	1494	1503	1512
ATT TTG GAG GTA AAT GGG AGA GAT GTC ACC GGA CGA ACC CAG GAA GAG CTT GTG					
I L E V N G R D V T G R T Q E E L V					
1521	1530	1539	1548	1557	1566
GCC ATG CTC AGG AGC ACC AAG CAG GGG GAG ACA GCA TCG CTG GTC ATT GCC CGC					
A M L R S T K Q G E T A S L V I A R					
1575	1584	1593	1602	1611	1620
CAA GAA GGA CAT TTT CTG CCC CGA GAG TTG AAA GGA GAA CCT GAC TGC TGT GCA					
Q E G H F L P R E L K G E P D C C A					
1629	1638	1647	1656	1665	1674
CTC TCT CTG GAG ACA AGC GAG CAG CTC ACC TTT GAG ATC CCC CTG AAT GAT TCA					
L S L E T S E Q L T F E I P L N D S					

FIGURE 1F

1683	1692	1701	1710	1719	1728
GGT TCT GCT GGC CTC GGG GTG AGC TTA AAA GGG AAC AAA TCC AGA GAA ACT GGA					
---	---	---	---	---	---
G S A G L G G V S L K G N K S R E T G					
1737	1746	1755	1764	1773	1782
ACA GAC TTG GGG ATT TTT ATC AAA TCC ATC ATT CAT GGA GGC GCT GCT TTT AAG					
---	---	---	---	---	---
T D L G I F I K S I I H G G A A F K					
1791	1800	1809	1818	1827	1836
GAT GGT CGT CTG CGA ATG AAT GAC CAG CTG ATT GCA GTT AAT GGG GAA TCT CTT					
---	---	---	---	---	---
D G R L R M N D Q L I A V N G E S L					
1845	1854	1863	1872	1881	1890
TTG GGA AAG TCC AAC CAC GAA GCT ATG GAA ACA CTT AGG CGG CCA ATG TCC ATG					
---	---	---	---	---	---
L G K S N H E A M E T L R R P M S M					
1899	1908	1917	1926	1935	1944
GAG GGA AAC ATC CGA GGG ATG ATC CAG TTG GTG ATT CTG AGG AGG CCA GAG AGA					
---	---	---	---	---	---
E G N I R G M I Q L V I L R R P E R					

FIGURE 1G

1953	1962	1971	1980	1989	1998
CCA ATG GAG GAT CCT GCA GAG TGT GGG GCA TTT TCC AAG CCA TGC TTT GAG AAC					
---	---	---	---	---	---
P M E D P A E C G A F S K P C F E N					
2007	2016	2025	2034	2043	2052
TGT CAA AAT GCT GTA ACC ACC TCT AGG CGA AAT GAT AAT AGT ATC CTG CAT CCA					
---	---	---	---	---	---
C Q N A V T T S R R N D N S I L H P					
2061	2070	2079	2088	2097	2106
CTT GGC ACT TGC AGT CCA CAA GAC AAA CAG AAA GGT CTA TTG CTG CCC AAT GAC					
---	---	---	---	---	---
L G T C S P Q Q D K Q K G L L L P N D					
2115	2124	2133	2142	2151	2160
GGA TGG GCC GAG AGT GAA GTT CCA CCT TCT CCA ACA CCA CAT TCT GCT CTG GGA					
---	---	---	---	---	---
G W A E S E V P P S P T P H S A L G					
2169	2178	2187	2196	2205	2214
TTG GGC CTC GAA GAT TAC AGC CAC AGC TCT GGG GTG GAT TCA GCA GTA TAT TTT					
---	---	---	---	---	---
L G L E D Y S H S S G V D S A V Y F					

FIGURE 1H



2223	2232	2241	2250	2259	2268
CCA GAT CAG CAC ATC AAC TTC AGA TCT GTG ACA CCG GCC AGG CAG CCT GAA TCA					
---	---	---	---	---	---
P D Q H I N F R S V T P A R Q P E S					
2277	2286	2295	2304	2313	2322
ATT AAT TTG AAA GCC TCG AAG AGC ATG GAC CTT GTG CCA GAT GAA AGC AAG GTT					
---	---	---	---	---	---
I N L K A S K S M D L V P D E S K V					
2331	2340	2349	2358	2367	2376
CAC TCA TTG GCT GGA CAA AAA TCG GAA TCT CCA AGC AAA GAT TTT GGT CCA ACT					
---	---	---	---	---	---
H S L A G Q K S E S P S K D F G P T					
2385	2394	2403	2412	2421	2430
CTG GGT TTG AAA AAG TCC AGC TCC TTG GAG AGT CTG CAG ACT GCA GTG GCC GAG					
---	---	---	---	---	---
L G L K K S S S L E S L Q T A V A E					
2439	2448	2457	2466	2475	2484
GTC AGG AAG AAT GAC CTT CCC TTT CAC AGG CCC CGG CCG CAC ATG GTT CGA GGC					
---	---	---	---	---	---
V R K N D L L P F H R P R P H M V R G					

FIGURE 11

2493	2502	2511	2520	2529	2538
CGA GGC TGC AAT GAG AGC TTT AGA GCA GCC ATT GAC AAA TCC TAC GAT GGA CCT					
---	---	---	---	---	---
R G C N E S F R A A I D K S Y D G P					
2547	2556	2565	2574	2583	2592
GAA GAA ATA GAA GCT GAC GGT CTG TCT GAT AAG AGC TCT CAC TCT GGC CAA GGA					
---	---	---	---	---	---
E E I E A D G L S D K S S H S G Q G					
2601	2610	2619	2628	2637	2646
GCT CTG AAT TGT GAG TCT GCC CCT CAG GGG AAT TCG GAG CTA GAG GAC ATG GAA					
---	---	---	---	---	---
A L N C E S A P Q G N S E L E D M E					
2655	2664	2673	2682	2691	2700
AAT AAA GCC AGG AAA GTC AAA AAA ACG AAA GAG AAG GAG AAG AAA AAG GAA AAG					
---	---	---	---	---	---
N K A R K V K K T K E K E K K K E K					
2709	2718	2727	2736	2745	2754
GGC AAA TTG AAA GTC AAG GAG AAA AAG CGC AAA GAG GAG AAT GAA GAT CCA GAA					
---	---	---	---	---	---
G K L K V K E K K R K E E N E D P E					

FIGURE 1J

2763	2772	2781	2790	2799	2808
AGG AAA ATA AAG AAG AAG GGC TTC GGC GCC ATG CTG AGG TAT GGG CCT GCT TTG					
---	---	---	---	---	---
R K I K K K K G F G A M L R Y G P A L					
2817	2826	2835	2844	2853	2862
AAG GCA AAG TTG GTT CTC ATT TTG TCT CTC CTG AAA AAA GCG CAC GCT TTT CCT					
---	---	---	---	---	---
K A K L V L I L S L L K K A H A F P					
2871	2880	2889	2898	2907	2916
CGT CTT CAG CCA AAT GCA TAC GGC TCT CAA TTC TGT GCT CGT TCT CTT TCT GCA					
---	---	---	---	---	---
R L Q P N A Y G S Q F C A R S L S A					
2925	2934	2943	2952	2961	2970
GAG GCA GAG GAG CTT TTT GGG GAA AGT TAC AGT GAT GAC AGG ACA CTG TCT TAA 3'					
---	---	---	---	---	---
E A E E L F G E S Y S D D R T L S					

FIGURE 1K

5'	ATG	AAA	GTG	ACC	GTG	TGC	TTC	GGA	CGG	ACC	CGG	GTG	GTG	CCG	GTG	TGC	GGG	GAC	54
	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
	M	K	V	T	V	C	F	G	R	T	R	V	V	V	P	C	G	D	
	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	
	GGC	CAC	ATG	AAA	GTT	TTC	AGC	CTC	ATC	CAG	CAG	GCG	GTG	ACC	CGC	TAC	CGG	AAG	108
	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	
	G	H	M	K	V	F	S	L	I	Q	Q	A	V	T	R	Y	R	K	
	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	
	GCC	ATC	GCC	AAG	GAT	CCA	AAC	TAC	TGG	ATA	CAG	GTG	CAT	CGC	TTG	GAA	CAT	GGA	162
	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	
	A	I	A	K	D	P	N	Y	W	I	Q	V	H	R	L	E	H	G	
	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	
	GAT	GGA	GGA	ATA	CTA	GAC	CTT	GAT	GAC	ATT	CTT	TGT	GAT	GTA	GCA	GAC	GAT	AAA	216
	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	
	D	G	G	I	L	D	L	D	D	I	L	C	D	V	A	D	D	K	
	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	
	GAC	AGA	CTG	GTA	GCA	GTG	TTT	GAT	GAG	CAG	GAT	CCA	CAT	CAC	GGA	GGT	GAT	GGC	270
	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	
	D	R	L	V	A	V	F	D	E	Q	D	P	H	H	G	G	D	G	

FIGURE 2A

279	ACC	AGT	GCC	AGT	TCC	ACG	GGT	ACC	CAG	AGC	CCA	GAG	ATA	TTT	GGT	AGT	GAG	CTT	324
	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
	T	S	A	S	S	T	G	T	Q	S	P	E	I	F	G	S	E	L	
333	GGC	ACC	AAC	AAT	GTC	TCA	GCC	TTT	CAG	CCT	TAC	CAA	GCA	ACA	AGT	GAA	ATT	GAG	378
	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
	G	T	N	N	V	S	A	F	Q	P	Y	Q	A	T	S	E	I	E	
387	GTC	ACA	CCT	TCA	GTC	CTT	CGA	GCA	AAT	ATG	CCT	CTT	CAT	GTT	CGA	CGC	AGT	AGT	432
	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
	V	T	P	S	V	L	R	A	N	M	P	L	H	V	R	R	S	S	
441	GAC	CCA	GCT	CTA	ATT	GGC	CTC	TCC	ACT	TCT	GTC	AGT	GAT	AGT	AAT	TTT	TCC	TCT	486
	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
	D	P	A	L	I	G	L	S	T	S	V	S	D	S	N	F	S	S	
495	GAA	GAG	CCT	TCA	AGG	AAA	AAT	CCC	ACA	CGC	TGG	TCA	ACA	ACA	GCT	GGC	TTC	CTC	540
	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
	E	E	P	S	R	K	N	P	T	R	W	S	T	T	A	G	F	L	

FIGURE 2B

549	558	567	576	585	594
AAG CAG AAC ACT GCT GGG AGT CCT AAA ACC TGC GAC AGG AAG AAA GAT GAA AAC					
---	---	---	---	---	---
K Q N T A G S P K T C D R K K D E N					
603	612	621	630	639	648
TAC AGA AGC CTC CCG CGG GAT ACT AGT AAC TGG TCT AAC CAA TTT CAG AGA GAC					
---	---	---	---	---	---
Y R S L P R D T S N W S N Q F Q R D					
657	666	675	684	693	702
AAT GCT CGC TCG TCT CTG AGT GCC AGT CAC CCA ATG GTG GGC AAG TGG CTG GAG					
---	---	---	---	---	---
N A R S S L S A S H P M V G K W L E					
711	720	729	738	747	756
AAA CAA GAA CAG GAT GAG GAT GGG ACA GAA GAG GAT AAC AGT CGT GTT GAA CCT					
---	---	---	---	---	---
K Q E Q D E D G T E E D N S R V E P					
765	774	783	792	801	810
GTT GGA CAT GCT GAC ACG GGT TTG GAG CAT ATA CCC AAC TTT TCT CTG GAT GAT					
---	---	---	---	---	---
V G H A D T G L E H I P N F S L D D					

FIGURE 2C

819	ATG GTA AAG CTC GTA GAA GTC	837	AAC GAT GGA GGG	855	CTG GGA ATC	864	CAT GTA
M V K L V E V P N D G G P L G I H V							
873	GTC CCT TTC AGT GCT CGA GGC GGC AGA ACC CTG GGG TTA TTA GTA AAA CGA TTG	891		909		918	
V P F S A R G G R T L G L V K R L							
927	GAG AAA GGT GGT AAA GCT GAA CAT GAA AAT CTT TTT	945		963		972	
E K G G K A E H E N L F R E N D C I							
981	GTC AGG ATT AAT GAT GGC GAC CTT CGA AAT AGA AGA TTT	999		1017		1026	
V R I N D G D L R N R R F E Q A Q H							
1035	ATG TTT CGC CAA GCC ATG CGT ACA CCC ATC ATT TGG TTC	1053		1071		1080	
M F R Q A M R T P I I W F H V P A							

FIGURE 2D

1089	1098	1107	1116	1125	1134
GCA AAT AAA GAG CAG TAT GAA CAA CTA TCC CAA AGT GAG AAG AAC AAT TAC TAT					
---	---	---	---	---	---
A N K E Q Y E Q L S Q S E K N N Y Y					
1143	1152	1161	1170	1179	1188
TCA AGC CGT TTT AGC CCT GAC AGC CAG TAT ATT GAC AAC AGG AGT GTG AAC AGT					
---	---	---	---	---	---
S S R F S P D S Q Y I D N R S V N S					
1197	1206	1215	1224	1233	1242
GCA GGG CTT CAC ACG GTG CAG AGA GCA CCC CGA CTG AAC CAC CCG CCT GAG CAG					
---	---	---	---	---	---
A G L H T V Q R A P R L N H P P E Q					
1251	1260	1269	1278	1287	1296
ATA GAC TCT CAC TCA AGA CTA CCT CAT AGC GCA CAC CCC TCG GGA AAA CCA CCA					
---	---	---	---	---	---
I D S H S R L P H S A H P S G K P P					
1305	1314	1323	1332	1341	1350
TCC GGT CCA GCC TCG GCA CCT CAG AAT GTA TTT AGT ACG ACT GTA AGC AGT GGT					
---	---	---	---	---	---
S A P A S A P Q N V F S T T V S S G					

FIGURE 2E



1359	1368	1377	1386	1395	1404
TAT AAC ACC AAA ATA GGC AAG AGG CTT AAT ATC CAG CTT AAG AAA GGT ACA					
---	---	---	---	---	---
Y N T K K I G K R L N I Q L K K T					
1413	1422	1431	1440	1449	1458
GAA GGT TTG GGA TTC AGC ATC ACT TCC AGA GAT GTA ACA ATA GGT GGC TCA GCT					
---	---	---	---	---	---
E G L G F S I T S R D V T I G G S A					
1467	1476	1485	1494	1503	1512
CCA ATC TAT GTG AAA AAC ATT CTC CCC CGG GGG GCG GCC ATT CAG GAT GGC CGA					
---	---	---	---	---	---
P I Y V K N I L P R G A A I Q D G R					
1521	1530	1539	1548	1557	1566
CTT AAG GCA GGA GAC AGA CTT ATA GAG GTA AAT GGA GTA GAT TTA GTG GGC AAA					
---	---	---	---	---	---
L K A G D R L I E V N G V D L V G K					
1575	1584	1593	1602	1611	1620
TCC CAA GAG GAA GTT GTT TCG CTG TTG AGA AGC ACC AAG ATG GAA GGA ACT GTG					
---	---	---	---	---	---
S Q E E V V S L L R S T K M E G T V					

FIGURE 2F

1629	1638	1647	1656	1665	1674
AGC CTT CTG GTC TTT	CGC CAG GAA GAC GCC TTC CAC CCA AGG GAA CTG AAT GCA				
---	---	---	---	---	---
S L L V F R Q E D A F H P R E L N A					
1683	1692	1701	1710	1719	1728
GAG CCA AGC CAG ATG CAG ATT CCA AAA GAA ACG AAA GCA GAT GAG GAT ATT					
---	---	---	---	---	---
E P S Q M Q I P K E T K A E D E D I					
1737	1746	1755	1764	1773	1782
GTT CTT ACA CCT GAT GGC ACC AGG GAA TTT CTG ACA TTT GAA GTC CCA CTT AAT					
---	---	---	---	---	---
V L T P D G T R E F L T F E V P L N					
1791	1800	1809	1818	1827	1836
GAT TCA GGA TCT GCA GGC CTT GGT GTC AGT GTC AAA GGT AAC CGG TCA AAA GAG					
---	---	---	---	---	---
D S G S A G L G V S V K G N R S K E					
1845	1854	1863	1872	1881	1890
AAC CAC GCA GAT TTG GGA ATC TTT GTC AAG TCC ATT ATT AAT GGA GGA GCA GCA					
---	---	---	---	---	---
N H A A D L G I F V K S I I N G G A A					

FIGURE 2G

1899	1908	1917	1926	1935	1944
TCT AAA GAT GGA AGG CTT CGG GTG AAT GAT CAA CTG ATA GCA GTA AAT GGA GAA					
---	---	---	---	---	---
S K D G R L R V N D Q L I A V N G E					
---	---	---	---	---	---
1953	1962	1971	1980	1989	1998
TCC CTG TTG GGC AAG ACA AAC CAA GAT GCC ATG GAA ACC CTA AGA AGG TCT ATG					
---	---	---	---	---	---
S L L G K T N Q D A M E T L R R S M					
---	---	---	---	---	---
2007	2016	2025	2034	2043	2052
TCT ACT GAA GGC AAT AAA CGA GGA ATG ATC CAG CTT ATT GTT GCA AGG AGA ATA					
---	---	---	---	---	---
S T E G N K R G M I Q L I V A R R I					
---	---	---	---	---	---
2061	2070	2079	2088	2097	2106
AGC AAG TGC AAT GAG CTG AAG TCA CCT GGG AGC CCC CCT GGA CCT GAG CTG CCC					
---	---	---	---	---	---
S K C N E L K S P G S P P G P E L P					
---	---	---	---	---	---
2115	2124	2133	2142	2151	2160
ATT GAA ACA GCG TTG GAT GAT AGA GAA CGA AGA ATT TCC CAT TCC CTC TAC AGT					
---	---	---	---	---	---
I E T A L D D R E R R I S H S L Y S					

FIGURE 2H

2169	2178	2187	2196	2205	2214
GGG ATT GAG GGG CTT GAT GAA TCG CCC AGC AGA AAT GGT GCC CTC AGT AGG ATA					
---	---	---	---	---	---
G I E G L D E S P S R N A A L S R I					
2223	2232	2241	2250	2259	2268
ATG GGT GAG TCA GGT AAA TAC CAG CTG TCC CCT ACA GTG AAT ATG CCC CAA GAT					
---	---	---	---	---	---
M G E S G K Y Q L S P T V N M P Q D					
2277	2286	2295	2304	2313	2322
GAC ACT GTC ATT ATA GAA GAT GAC AGG TTG CCA GTG CTT CCT CCA CAT CTC TCT					
---	---	---	---	---	---
D T V I I E D D R L P V L P P H L S					
2331	2340	2349	2358	2367	2376
GAC CAG TCC TCT TCC AGC TCC CAT GAT GAT GTG GGG TTT GTG ACG GCA GAT GCT					
---	---	---	---	---	---
D Q S S S S S H D D V G F V T A D A					
2385	2394	2403	2412	2421	2430
GGT ACT TGG GCC AAG GCT GCA ATC AGT GAT TCA GCC GAC TGC TCT TTG AGT CCA					
---	---	---	---	---	---
G T W A K A A I S D S A D C S L S P					

FIGURE 2I

2439	2448	2457	2466	2475	2484
GAT GTT GAT CCA GTT CTT GCT TTT CAA CGA CAA GGA TTT GGA CGT CAG AGT ATG					
---	---	---	---	---	---
D V D P V L A F Q Q R E G F G R Q S M					
2493	2502	2511	2520	2529	2538
TCA GAA AAA CGC ACA AAG CAA TTT TCA GAT GCC AGT CAA TTG GAT TTC GTT AAA					
---	---	---	---	---	---
S E K R T K Q Q F S D A S Q L D F V K					
2547	2556	2565	2574	2583	2592
ACA CGA AAA TCA AAA AGC ATG GAT TTA GGT ATA GCT GAC GAG ACT AAA CTC AAT					
---	---	---	---	---	---
T R K S K S M D L G I A D E T K L N					
2601	2610	2619	2628	2637	2646
ACA GTG GAT GAC CAG AAA GCA GGT TCT CCC AGC AGA GAT GTG GGT CCT TCC CTG					
---	---	---	---	---	---
T V D D Q K A G S P S R D V G P S L					
2655	2664	2673	2682	2691	2700
GGT CTG AAG AAG TCA AGC TCG TTG CAG AGT CTG CAG ACC GCA GTT GCC GAG GTG					
---	---	---	---	---	---
G L K K S S S L E S L Q T A V A E V					

FIGURE 2J

2709	2718	2727	2736	2745	2754
ACT TTG AAT GGG GAT ATT CCT TTC CAT CGT CCA CGG CCG CGG ATA ATC AGA GGC					
---	---	---	---	---	---
T L N G D I P F H R P R P R I I R G					
2763	2772	2781	2790	2799	2808
AGG GGA TGC AAT GAG AGC TTC AGA GCT GCC ATC GAC AAA TCT TAT GAT AAA CCC					
---	---	---	---	---	---
R G C N E S F R A A I D K S Y D K P					
2817	2826	2835	2844	2853	2862
CGG GTA GAT GAT GAT GAT GAA GGC ATG GAG ACC TTG GAA GAA GAC ACA GAA GAA					
---	---	---	---	---	---
A V D D D D E G M E T L E E D T E E					
2871	2880	2889	2898	2907	2916
AGT TCA AGA TCA GGG AGA GAG TCT GTA TCC ACA GCC AGT GAT CAG CCT TCC CAC					
---	---	---	---	---	---
S S R S G R E S V S T A S D Q P S H					
2925	2934	2943	2952	2961	2970
TCT CTG GAG AGA CAA ATG AAT GGA AAC CAA GAG AAA GGT GAT AAG ACT GAT AGA					
---	---	---	---	---	---
S L E R Q M N G N Q E K G D K T D R					

FIGURE 2K

2979	2988	2997	3006	3015	3024
AAA AAG GAT AAA ACT GGA AAA GAA AAG AAG AAA GAT AGA GAT AAG GAG AAG GAT					
---	---	---	---	---	---
K K D K T G K E K K K D R D K E K D					
---	---	---	---	---	---
3033	3042	3051	3060	3069	3078
AAA ATG AAA GCC AAG AAG GGA ATG CTG AAG GGC TTG GGA GAC ATG TTC AGG TTT					
---	---	---	---	---	---
K M K A K K G M L K G L G D M F R F					
---	---	---	---	---	---
3087	3096	3105	3114	3123	3132
GGC AAA CAT CGA AAA GAT GAC AAG ATT GAG AAA ACG GGT AAA ATA AAA ATA CAG					
---	---	---	---	---	---
G K H R K D D K I E K T G K I K I Q					
---	---	---	---	---	---
3141	3150	3159	3168	3177	3186
GAA TCC TTT ACA TCA GAA GAG GAG AGG ATA CGA ATG AAG CAG GAG CAG GAG AGG					
---	---	---	---	---	---
E S F T S E E E R I R M K Q E Q E R					
---	---	---	---	---	---
3195	3204	3213	3222	3231	3240
ATT CAA GCC AAA ACT CGA GAA TTT AGG GAA CGA CAA GCT CGA GAG CGT GAC TAT					
---	---	---	---	---	---
I Q A K T R E F R E R Q A R E R D Y					

FIGURE 2L

3249	3258	3267	3276	3285	3294
GCT GAA ATT	CAA GAT TTT	CAT CGG ACA TTT	GGC TGT GAT	GAT GAG TTA	ATG TAT
---	---	---	---	---	---
A E I Q	D F H R	T F G C	D D E L	M Y	
---	---	---	---	---	---
3303	3312	3321	3330	3339	3348
GGG GGA GTT	TCT TCT TAT	GAA GGT TCC	ATG GCT CTC	AAC GCT AGA	CCT CAG AGC
---	---	---	---	---	---
G G V S	S Y E G	S M A L	N A R P	Q S	
---	---	---	---	---	---
3357	3366	3375	3384	3393	3402
CCA CGA GAA	GGG CAT ATG	ATG GAT GCT	TTG TAT GCC	CAA GTC AAG	AAG CCG CGG
---	---	---	---	---	---
P R E G	H M M D	A L Y A	Q V K K	P R	
---	---	---	---	---	---
3411	3420	3429	3438	3447	3456
AAT TCC AAA	CCC TCA CCT	GTA GAC AGT	AAC AGA TCA	ACT CCT AGC	AAT CAT GAT
---	---	---	---	---	---
N S K P	S P S V	D S N R	S T P S	N H D	
---	---	---	---	---	---
3465	3474	3483	3492	3501	3510
CGG ATA CAG	CGT CTG AGG	CAA GAA TTT	CAG CAA GCA	AAG CAA GAT	GAA GAT GTA
---	---	---	---	---	---
R I Q R	L R Q E	F Q Q A	K Q D E	D V	
---	---	---	---	---	---

FIGURE 2M



3519	GAA	GAT	CGT	CGG	CGG	ACC	TAT	AGT	TTT	GAG	CAA	CCC	TGG	CCG	AAC	GCA	CGG	CCG	3564
---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
---	E	D	R	R	R	T	Y	S	F	E	Q	P	W	P	N	A	R	P	---
---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
3573	GCG	ACG	CAG	AGC	GGG	CGA	CAC	TCG	GTG	TCC	GTG	GAG	GTG	CAG	ATG	CAG	CGG	CAG	3618
---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
---	A	T	Q	S	G	R	H	S	V	S	V	E	V	Q	M	Q	R	Q	---
---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
3627	CGG	CAG	GAG	GAG	CGC	GAG	AGC	TCC	CAG	CAG	GCC	CAG	CGC	CAG	TAC	AGC	TCT	CTG	3672
---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
---	R	Q	E	E	R	E	S	S	Q	Q	A	Q	R	Q	Y	S	S	L	---
---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
3681	CCT	CGG	CAA	AGC	AGG	AAA	AAT	GCC	AGC	TCG	GTC	TCC	CAG	GAC	TCT	TGG	GAG	CAG	3726
---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
---	P	R	Q	S	R	K	N	A	S	S	V	S	Q	D	S	W	E	Q	---
---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
3735	AAC	TAC	TCC	CCT	GGG	GAA	GGC	TTC	CAG	AGT	GCC	AAA	GAG	AAC	CCC	AGG	TAC	TCC	3780
---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
---	N	Y	S	P	G	E	G	F	Q	S	A	K	E	N	P	R	Y	S	---

FIGURE 2N

3789	3798	3807	3816	3825	3834
AGC TAC CAA GGC TCC AGG AAC GGC TAC CTG GGA GGA CAT GGC TTC AAC GCC AGG					
S Y Q G S R N G Y L G G H G F N A R					
3843	3852	3861	3870	3879	3888
GTC ATG CTG GAA ACT CAG GAG CTC CTT CGC CAG GAA CAG AGG CGG AAG GAG CAG					
V M L E T Q E L L R Q E Q R R K E Q					
3897	3906	3915	3924	3933	3942
CAG ATG AAG AAG CAG CCT CCT TCC GAG GGG CCC AGC AAC TAT GAC TCG TAT AAG					
Q M K K Q P P S E G P S N Y D S Y K					
3951	3960	3969	3978	3987	3996
AAA GTC CAG GAC CCC AGT TAC GCC CCT CCC AAG GGG CCC TTC CGG CAA GAT GTG					
K V Q Q D P S Y A P P K G P F R Q D V					
4005	4014	4023	4032	4041	4050
CCC CCC TCC CCT TCT CAG GTT GCG AGG CTG AAC AGA CTT CAG ACT CCT GAG AAA					
P P S P S Q V A R L N R L Q T P E K					

FIGURE 20

4059	4068	4077	4086	4095	4104
GGG AGG CCC	TTC TAT TCC	TGA GCA CGC AAA	TAA CGG ATG	CIT CAT	GTC GCG CAA
---	---	---	---	---	---
G	R	P	Y	S	
4113	4122	4131	4140	4149	4158
TAA AAG ACA	TTT TCC TAT GAA	GAC TTG TAT	TTT GGG AGT	TTT TTT AAA	ACC TCG
4167	4176	4185	4194	4203	4212
ATG GTA CTA	TGG AGT ATT	TCT GTT GTT	GGT ATC AGT	GCC TTT AAG	CGG TGT AGG
4221	4230	4239	4248	4257	4266
CAA AGA AAT	GGA AGG CCT	TAA TGT CTT	TGC CAC TAT	GTC TCA AGT	GTC TGT TTC
4275	4284	4293	4302	4311	4320
ATG GAA GGA	TTT CCC ACC	CTG TGA CAA	TCA TCT GTT	TGA GGT GTT	CAT ATG CTC
4329	4338	4347	4356	4365	4374
TGC GCC TCT	CCA CAG TAC	CAG GAA TCT	CGG CCC TAC	TCA TGA GTT	GTC GCG GGC
4383	4392	4401	4410	4419	4428
TTG GTT GTA	ACA TCC CTG	CAC CAC TTG	CAG TGA CAA	ATT CAC CTG	AAG TGG AGG
4437	4446	4455	4464	4473	4482
ATG ACG TGC	GCG CCT GTT	TCT CCC TCT	AAG TTC TCT	TAG CTA TGG	GAT GAC ATC
4491	4500	4509	4518	4527	4536
TTA GTC TCT	TGT GGA GGA	AAA GTG GGC	GAC ATA CAC	CAA AAA TTG	GGG CTT TCT

FIGURE 2P

4545 GGT ACT TCA CAG CAC AGC CAT TTG TCG TAC TTT GTC ATC ACT GTG GTT TTC TCT 4590  
 4599 TTC CTT TCT CAG CTC TTT GTG ACG GGA GAG TCG GTC ATC CTA TTA CAG AAG CTA 4644  
 4653 AGC CAT AGT CCA ACA TTG TTT GGT CAC CAT GGG GGT CCT TTT GTA ACT GCC TTA 4698  
 4707 TGA CTC AAC ATT ACC AAT AAA GTG ATG ATC CTG GTC 4734 4743 4752  
 4761 TGT TCG GTC CTG TTC CTG ACA CGT GGG TTG AGT CAC CAC AGC TCT GTG TGG GGA 4806  
 4815 ACG TGG GAG ACA GGA GTG GCT CCT GCC GGG GGA AGC TGG GCC TGC CAT TGG CCC 4860  
 4869 TGT GTC TAT CAT GAG GGG AGA GCT AAG AAA GAA ATT CTC CTA GGA AGA GCT CAT 4914  
 4923 GGC CCA GTA CAT CCT AGT AAT TAT TTT AAT TAG TTT TTG TTC TGA CAG CTT GTC 4968  
 4977 AGG AAG GGC ACA GAA TGG GAC AGA GAT AAA CCA GAC AGT CAT TTT GAT CTG CTC 5022

FIGURE 2Q

5031	5040	5049	5058	5067	5076
TCT ACG GTT TTT	CAA GTC AGA	GGC AAT TGA	TGC TTG TCT	AAT GCA TCC	ACA CAC
5085	5094	5103	5112	5121	5130
TGC ATG TCT GAC	TGG CGA TGC	CAC GCT CCT	AAG TAG TTC	TGC CAT GAA	ACA TAA
5139	5148	5157	5166	5175	5184
AAG ACA AAG GAA	AAG CCG TTA	CAC ATC ACA	CAG AGA ACA	TTT TCG GGT	CCC ACA
5193	5202	5211	5220	5229	5238
GCG GTG GTG GCA	GGA AGC TCA	CTC TCG CGT	CAG TAT TAG	AGT GTG TGT	GTG GGT
5247	5256	5265	5274	5283	5292
CTC GGG GAT CTC	GGT GGC TCC	CAT CTT CCT	TCA TTG TTC	TGA ACA TCC	TGT ATT
5301	5310	5319	5328	5337	5346
GTA AAC CAT GGC	TGG GGT GCT	AAA GTG CCT	GTG AAT CCC	GAT GTG GAA	AAA GCT
5355	5364	5373	5382	5391	5400
GGA GGT GAA AGC	TCA GCA TAC	CAT GTA TTT	ACT TTA AAA	ACA GAA AAA	AAG ACA
5409	5418	5427	5436	5445	5454
TGT ATG GAT ATG	TCT ATT TTT	TTT TTA TTG	GCA CAT TGT	ATT TTT GTG	TTG ACT
5463	5472	5481	5490	5499	5508
TGT TTT TAG AAA	TGA TGT GTC	CAC ACA CGT	ACC CGT GTC	TCT TCT GCA	TTT CTG

FIGURE 2R

THE UNIVERSITY OF CHICAGO

5517	5526	5535	5544	5553	5562
TGT CAT GGT TCT TCT TAA TCA CGT GCG GCG GTG TCT AAG TGG TGT TAC CAG					
5571	5580	5589	5598	5607	5616
TGT ACG CGC AGT GAC CTT GGA TGA CAG TGG CTC TTT CTC ACA GCC TCC CCT GAG					
5625	5634	5643	5652	5661	5670
CTG TGA GAA ACA GCT TTC TCT GTA CAT ATG CAA CTC CTA ATA AAA GGC ATA TTT					
5679	5688				
CTT CCT GTT AAA AAA AAA A 3'					

FIGURE 2S

1	M	K	V	T	V	C	F	G	R	T	G	I	V	V	P	C	K	E	G	Q	L	R	V	G	E	L	T	Q	Q	A	1555118
1	M	K	V	T	V	C	F	G	R	T	R	V	V	V	P	C	G	D	G	H	M	K	V	F	S	L	I	Q	Q	A	2582063
1	M	K	V	T	V	C	F	G	R	T	R	V	V	V	P	C	G	D	G	R	M	K	V	F	S	L	I	Q	Q	A	93868778
1	M	K	V	T	V	C	F	G	R	T	R	V	V	V	P	C	G	D	G	H	M	K	V	F	S	L	I	Q	Q	A	98037915
31	L	Q	R	Y	L	K	T	R	E	K	G	P	G	Y	W	V	K	I	H	H	L	E	Y	T	D	G	G	I	L	D	1555118
31	V	T	R	Y	R	K	A	I	A	K	D	P	N	Y	W	I	Q	V	H	R	L	E	H	G	D	G	G	I	L	D	2582063
31	V	T	R	Y	R	K	A	V	A	K	D	P	N	Y	W	I	Q	V	H	R	L	E	H	G	D	G	G	I	L	D	93868778
31	V	T	R	Y	R	K	A	I	A	K	D	P	N	Y	W	I	Q	V	H	R	L	E	H	G	D	G	G	I	L	D	98037915
61	P	D	D	V	L	A	D	V	E	D	K	D	K	L	I	A	V	F	E	E	Q	E	P	L	H	K	I	E	S	1555118	
61	L	D	D	I	L	C	D	V	A	D	D	K	D	R	L	V	A	V	F	D	E	Q	D	P	H	H	G	G	D	G	2582063
61	L	D	D	I	L	C	D	V	A	D	D	K	D	R	L	V	A	V	F	D	E	Q	D	P	H	H	G	G	D	G	93868778
61	L	D	D	I	L	C	D	V	A	D	D	K	D	R	L	V	A	V	F	D	E	Q	D	P	H	H	G	G	D	G	98037915
91	P	S	G	N	P	A	D	R	Q	S	P	D	A	F	E	T	E	V	A	A	Q	-	L	A	A	F	K	P	-	-	1555118
91	T	S	A	S	S	T	G	T	Q	S	P	E	I	F	G	S	E	L	G	T	N	N	V	S	A	F	Q	P	Y	Q	2582063
91	T	S	A	S	S	T	G	T	Q	S	P	E	I	F	G	S	E	L	G	T	N	N	V	S	A	F	R	P	Y	Q	93868778
91	T	S	A	S	S	T	G	T	Q	S	P	E	I	F	G	S	E	L	G	T	N	N	V	S	A	F	Q	P	Y	Q	98037915
118	I	G	G	E	I	E	V	T	P	S	A	L	K	L	G	T	P	L	L	V	R	R	S	S	D	P	V	-	-	-	1555118
121	A	T	S	E	I	E	V	T	P	S	V	L	R	A	N	M	P	L	H	V	R	R	S	S	D	P	A	L	I	G	2582063
121	T	S	E	I	E	V	T	P	S	V	L	R	A	N	M	P	L	H	V	R	R	S	S	D	P	A	L	T	G	93868778	
121	A	T	S	E	I	E	V	T	P	S	V	L	R	A	N	M	P	L	H	V	R	R	S	S	D	P	A	L	I	G	98037915

FIGURE 3A

145	- - - - -	- - - - -	P	G	P	A	D	T	Q	P	S	A	S	H	P	G	Q	S	L	1555118											
151	L	S	T	S	V	S	D	S	N	F	S	S	E	E	P	S	R	K	N	P	T	R	W	S	T	T	A	G	F	L	2582063
151	L	S	T	S	V	S	D	N	N	F	S	S	E	E	P	S	R	K	N	P	T	R	W	S	T	T	A	G	F	L	g3868778
151	L	S	T	S	V	S	D	S	N	F	S	S	E	E	P	S	R	K	N	P	T	R	W	S	T	T	A	G	F	L	g8037915
164	K	L	V	V	P	D	S	T	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1555118	
181	K	Q	N	T	A	G	S	P	K	T	C	D	R	K	K	D	E	N	Y	R	S	L	P	R	D	T	S	N	W	S	2582063
181	K	Q	N	T	T	G	S	P	K	T	C	D	R	K	K	D	E	N	Y	R	S	L	P	R	D	P	S	S	W	S	g3868778
181	K	Q	N	T	A	G	S	P	K	T	C	D	R	K	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	g8037915
172	-	-	-	Q	N	L	E	D	R	E	V	L	N	G	V	Q	T	E	L	-	-	-	L	T	S	P	R	T	K	D	1555118
211	N	Q	F	Q	R	D	N	A	R	S	S	L	S	A	S	H	P	M	V	G	K	W	L	E	K	Q	E	Q	D	E	2582063
211	N	Q	F	Q	R	D	N	A	R	S	S	L	S	A	S	H	P	M	V	D	R	W	L	E	K	Q	E	Q	D	E	g3868778
195	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	g8037915	
196	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1555118	
241	D	G	T	E	E	D	N	S	R	V	E	P	V	G	H	A	D	T	G	L	E	H	I	P	N	F	S	L	D	D	2582063
241	E	G	T	E	E	D	S	S	R	V	E	P	V	G	H	A	D	T	G	L	E	N	M	P	N	F	S	L	D	D	g3868778
197	D	G	T	E	E	D	N	S	R	V	E	P	V	G	H	A	D	T	G	L	E	H	I	P	N	F	S	L	D	D	g8037915
200	M	T	R	T	V	E	I	S	G	E	G	G	P	L	G	I	H	V	V	P	P	F	S	S	L	S	G	R	I	L	1555118
271	M	V	K	L	V	E	V	P	N	D	G	G	P	L	G	I	H	V	V	P	P	-	S	A	R	G	G	R	T	L	2582063
271	M	V	K	L	V	Q	V	P	N	D	G	G	P	L	G	I	H	V	V	P	P	-	S	A	R	G	G	R	T	L	g3868778
227	M	V	K	L	V	E	V	P	N	D	G	G	P	L	G	I	H	V	V	P	P	-	S	A	R	G	G	R	T	L	g8037915

FIGURE 3B



230	G	L	F	I	R	G	I	E	D	N	S	R	S	K	R	E	G	L	F	H	E	N	E	C	I	V	K	I	N	1555118	
300	G	L	V	K	R	L	E	K	G	G	K	A	E	H	E	N	L	F	R	E	N	D	C	I	V	R	I	N	D	2582063	
300	G	L	V	K	R	L	E	K	G	G	K	A	E	Q	E	N	L	F	H	E	N	D	C	I	V	R	I	N	D	g3868778	
256	G	L	V	K	R	L	E	K	G	G	K	A	E	H	E	N	L	F	R	E	N	D	C	I	V	R	I	N	D	g8037915	
260	V	D	L	V	D	K	T	F	A	Q	A	Q	D	V	F	R	Q	A	M	K	S	P	S	V	L	L	H	V	L	P	1555118
330	G	D	L	R	N	R	R	F	E	Q	A	Q	H	M	F	R	Q	A	M	R	T	P	I	I	W	F	H	V	V	P	2582063
330	G	D	L	R	N	R	R	F	E	Q	A	Q	H	M	F	R	Q	A	M	R	A	R	V	I	W	F	H	V	V	P	g3868778
286	G	D	L	R	N	R	R	F	E	Q	A	Q	H	M	F	R	Q	A	M	R	T	P	I	I	W	F	H	V	V	P	g8037915
290	P	Q	N	R	E	Q	Y	E	K	S	V	I	G	S	L	N	I	F	G	N	N	-	-	-	D	G	V	L	K	1555118	
360	A	A	N	K	E	Q	Y	E	Q	L	S	Q	S	E	K	N	N	Y	Y	S	S	R	F	S	P	D	S	Q	Y	I	2582063
360	A	A	N	K	E	Q	Y	E	Q	L	S	Q	R	E	M	N	N	Y	S	P	G	R	F	S	P	D	S	H	C	V	g3868778
316	A	A	N	K	E	Q	Y	E	Q	L	S	Q	S	E	K	N	N	Y	Y	S	S	R	F	S	P	D	S	Q	Y	I	g8037915
316	T	K	V	P	P	V	H	G	K	S	G	L	K	T	A	N	L	T	G	T	D	S	P	E	T	D	A	S	A	1555118	
390	D	N	R	S	V	N	S	A	G	L	H	T	V	Q	R	A	P	R	L	N	H	P	P	E	Q	I	D	S	H	S	2582063
390	A	N	R	S	V	A	N	N	A	P	Q	A	L	F	R	A	P	R	L	S	Q	P	P	E	Q	L	D	A	H	P	g3868778
346	D	N	R	S	V	N	S	A	G	L	H	T	V	Q	R	A	P	R	L	N	H	P	P	E	Q	I	D	S	H	S	g8037915
346	S	L	Q	Q	N	K	S	P	R	V	P	R	L	G	G	K	P	S	S	P	S	-	-	L	S	P	L	M	G	-	1555118
420	R	L	P	H	S	A	H	P	S	G	K	P	P	S	A	P	A	S	A	P	Q	N	V	F	S	T	T	V	S	2582063	
420	R	L	P	H	S	A	H	A	S	T	K	P	P	T	A	P	A	L	A	P	N	V	L	S	T	S	V	G	S	g3868778	
376	R	L	P	H	S	A	H	P	S	G	K	P	P	S	A	P	A	S	A	P	Q	N	V	F	S	T	T	V	S	g8037915	

FIGURE 3C

373	-	F	G	S	N	K	N	A	K	I	K	I	D	L	K	K	G	P	E	G	L	G	F	T	V	V	T	R	D	1555118	
450	G	Y	N	T	K	K	I	G	K	R	L	N	I	Q	L	K	K	G	T	E	G	L	G	F	S	I	T	S	R	D	2582063
450	V	Y	N	T	K	R	V	G	K	R	L	N	I	Q	L	K	K	G	T	E	G	L	G	F	S	I	T	S	R	D	93868778
406	G	Y	N	T	K	K	I	G	K	R	L	N	I	Q	L	K	K	G	T	E	G	L	G	F	S	I	T	S	R	D	98037915
402	S	S	I	H	G	P	G	P	I	F	V	K	N	I	L	P	K	G	A	A	I	K	D	G	R	L	Q	S	G	D	1555118
480	V	T	I	G	S	A	P	I	Y	V	K	N	I	L	P	R	G	A	A	I	Q	D	G	R	L	K	A	G	D		2582063
480	V	T	I	G	S	A	P	I	Y	V	K	N	I	L	P	R	G	A	A	I	Q	D	G	R	L	K	A	G	D		93868778
436	V	T	I	G	S	A	P	I	Y	V	K	N	I	L	P	R	G	A	A	I	Q	D	G	R	L	K	A	G	D		98037915
432	R	I	L	E	V	N	G	R	D	V	T	G	R	T	Q	E	E	L	V	A	M	L	R	S	T	K	Q	G	E	T	1555118
510	R	L	I	E	V	N	G	V	D	L	V	G	K	S	Q	E	E	V	V	S	L	L	R	S	T	K	M	E	G	T	2582063
510	R	L	I	E	V	N	G	V	D	L	A	G	K	S	Q	E	E	V	V	S	L	L	R	S	T	K	M	E	G	T	93868778
466	R	L	I	E	V	N	G	V	D	L	V	G	K	S	Q	E	E	V	V	S	L	L	R	S	T	K	M	E	G	T	98037915
462	A	S	L	V	I	A	R	Q	E	G	H	F	L	P	R	E	L	K	G	E	P	D	C	C	A	L	S	L	E	T	1555118
540	V	S	L	V	F	R	Q	E	D	A	F	H	P	R	E	L	N	A	E	P	S	Q	M	Q	I	P	K	E	T	2582063	
540	V	S	L	V	F	R	Q	E	E	A	F	H	P	R	E	M	N	A	E	P	S	Q	M	Q	S	P	K	E	T	93868778	
496	V	S	L	V	F	R	Q	E	D	A	F	H	P	R	E	L	-	-	-	-	-	-	-	-	-	-	-	-	-	98037915	
492	S	E	Q	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1555118		
570	K	A	E	D	E	D	I	V	L	T	P	D	G	T	R	E	F	L	T	F	E	V	P	L	N	D	S	G	S	A	2582063
570	K	A	E	D	E	D	I	V	L	T	P	D	G	T	R	E	F	L	T	F	E	V	P	L	N	D	S	G	S	A	93868778
513	K	A	E	D	E	D	I	V	L	T	P	D	G	T	R	E	F	L	T	F	E	V	P	L	N	D	S	G	S	A	98037915

FIGURE 3D

508	G	L	G	V	S	L	K	G	N	K	S	R	E	T	G	T	D	L	G	I	F	I	K	S	I	I	H	G	G	A	1555118			
600	G	L	G	V	S	V	K	G	N	R	S	K	E	N	H	A	D	L	G	I	F	V	K	S	I	I	N	G	G	A	2582063			
600	G	L	G	V	S	V	K	G	N	R	S	K	E	N	H	A	D	L	G	I	F	V	K	S	I	I	N	G	G	A	g3868778			
543	G	L	G	V	S	V	K	G	N	R	S	K	E	N	H	A	D	L	G	I	F	V	K	S	I	I	N	G	G	A	g8037915			
538	A	F	K	D	G	R	L	R	M	N	D	Q	L	I	A	V	N	G	E	S	L	L	G	K	S	N	H	E	A	M	1555118			
630	A	S	K	D	G	R	L	R	V	N	D	Q	L	I	A	V	N	G	E	S	L	L	G	K	T	N	Q	D	A	M	2582063			
630	A	S	K	D	G	R	L	R	V	N	D	Q	L	I	A	V	N	G	E	S	L	L	G	K	A	N	Q	E	A	M	g3868778			
573	A	S	K	D	G	R	L	R	V	N	D	Q	L	I	A	V	N	G	E	S	L	L	G	K	T	N	Q	D	A	M	g8037915			
568	E	T	L	R	R	P	M	S	M	E	G	N	I	R	G	M	I	Q	L	V	I	L	R	R	-	-	-	-	-	-	1555118			
660	E	T	L	R	R	S	M	S	T	E	G	N	K	R	G	M	I	Q	L	I	V	A	R	R	I	S	K	C	N	E	2582063			
660	E	T	L	R	R	S	M	S	T	E	G	N	K	R	G	M	I	Q	L	I	V	A	R	R	I	S	R	C	N	E	g3868778			
603	E	T	L	R	R	S	M	S	T	E	G	N	K	R	G	M	I	Q	L	I	V	A	R	R	I	S	K	C	N	E	g8037915			
592	-	-	-	-	-	-	-	-	-	-	-	-	P	E	R	P	M	E	D	P	-	A	E	C	G	A	F	S	K	P	C	F	E	1555118
690	L	K	S	P	G	S	P	P	G	P	E	L	P	I	E	T	A	L	D	D	R	E	R	R	I	S	H	S	L	Y	2582063			
690	L	R	S	P	G	S	P	A	A	P	E	L	P	I	E	T	E	L	D	D	R	E	R	R	I	S	H	S	L	Y	g3868778			
633	L	K	S	P	G	S	P	P	G	P	E	L	P	I	E	T	A	L	D	D	R	E	R	R	I	S	H	S	L	Y	g8037915			
612	N	C	Q	N	A	V	T	S	R	R	N	D	N	S	I	L	H	P	L	G	T	C	S	P	Q	D	K	Q	K	1555118				
720	S	G	I	E	G	L	D	E	S	P	S	R	N	A	A	L	S	R	I	M	G	E	S	G	K	Y	Q	L	S	P	2582063			
720	S	G	I	E	G	L	D	E	S	P	T	R	N	A	A	L	S	R	I	M	G	E	S	G	K	C	Q	L	S	P	g3868778			
663	S	G	I	E	G	L	D	E	S	P	S	R	N	A	A	L	S	R	I	M	G	-	-	-	K	Y	Q	L	S	P	g8037915			

FIGURE 3E

642	G L L L	P N D	G W A E S	E	- - - - -	V P P	- - - - -	S P	1555118
750	T V N M P	Q D D	T V I I	E D D R L	P V L	P P H L S	D Q S S S		2582063
750	T V N M P	H D D	T V M I	E D D R L	P V L	P P H L S	D Q S S S		g3868778
690	T V N M P	Q D D	T V I I	E D D R L	P V L	P P H L S	D Q S S S		g8037915
660	T P H	S A L	G L G L E	D	- - - - -	- - - - -	Y S H	S	1555118
780	S S H D D	V G F V	T A D A	G T W A K A A	I S D S A	D C S L S			2582063
780	S S H D D	V G F I	M T E A	G T W A K A T	I S D S A	D C S L S			g3868778
720	S S H D D	V G F V	T A D A	G T W A K A A	I S D S A	D C S L S			g8037915
676	S G V D	S A V Y	F P D Q	H I N F R	S V T P A R	- - - - -	- - - - -		1555118
810	P D V D	P V L A	F Q R R E	G F G R Q	S M S E K R T	K Q F S D A			2582063
810	P D V D	P V L A	F Q R R E	G F G R Q	S M S E K R T	K Q F S N A			g3868778
750	P D V D	P V L A	F Q R R E	G F G R Q	- - - - -	- - - - -	- - - - -		g8037915
699	- Q	P E S I N L	K A S K S M D L	- V P D E	S K V H S L A G Q				1555118
840	S Q L D	F V K T R K S	K S M D L G I A D E	T K L N T V D D Q					2582063
840	S Q L D	F V K T R K S	K S M D L G I A D E	T K L N T V D D Q					g3868778
767	- - - - -	- - - - -	- - - - -	- I A D E	T K L N T V D D Q				g8037915
727	K S E S	P S K D	F G P T L	G L K K K S S S L E S L Q	T A V A E				1555118
870	K A G S P	S R D V G P S L	G L K K K S S S L E S L Q	T A V A E					2582063
870	R A G S P	N R D V G P S L	G L K K K S S S L E S L Q	T A V A E					g3868778
780	K A G S P	S R D V G P S L	G L K K K S S S L E S L Q	T A V A E					g8037915

FIGURE 3F

757	V	R	-	K	N	D	L	P	F	H	R	P	R	P	H	M	V	R	G	R	G	C	N	E	S	F	R	A	A	I	1555118
900	V	T	L	N	G	D	I	P	F	H	R	P	R	P	R	I	I	R	G	R	G	C	N	E	S	F	R	A	A	I	2582063
900	V	T	L	N	G	N	I	P	F	H	R	P	R	P	R	I	I	R	G	R	G	C	N	E	S	F	R	A	A	I	g3868778
810	V	T	L	N	G	D	I	P	F	H	R	P	R	P	R	I	I	R	G	R	G	C	N	E	S	F	R	A	A	I	g8037915
786	D	K	S	Y	D	G	P	E	-	E	I	E	A	D	G	L	-	-	-	-	S	D	K	S	H	S	G			1555118	
930	D	K	S	Y	D	K	P	A	V	D	D	D	D	E	G	M	E	T	L	E	E	D	T	E	E	S	S	R	S	G	2582063
930	D	K	S	Y	D	K	P	M	V	D	D	D	D	E	G	M	E	T	L	E	E	D	T	E	E	S	S	R	S	G	g3868778
840	D	K	S	Y	D	K	P	A	V	D	D	D	D	E	G	M	E	T	L	E	E	D	T	E	E	S	S	R	S	G	g8037915
809	Q	G	A	L	N	C	E	S	A	P	Q	G	N	S	E	L	E	D	M	-	-	-	-	-	-	-	-	-	-	E	1555118
960	R	E	S	V	S	T	A	S	D	Q	P	S	H	S	L	E	R	Q	M	N	G	N	Q	E	K	G	D	K	T	D	2582063
960	R	E	S	V	S	T	S	S	D	Q	P	S	Y	S	L	E	R	Q	M	N	G	D	P	E	K	R	D	K	A	E	g3868778
870	R	E	S	V	S	T	A	S	D	Q	P	S	H	S	L	E	R	Q	M	N	G	N	Q	E	K	G	D	K	T	D	g8037915
829	N	K	A	R	K	V	K	T	K	E	K	K	E	K	K	G	K	L	K	V	K	E	-	-	-	-	-	-	-	1555118	
990	R	K	K	D	K	T	G	K	E	K	K	D	R	D	K	E	K	D	K	M	K	A	K	K	G	M	L	K	G	2582063	
990	K	K	K	D	K	A	G	K	D	K	K	D	R	E	K	E	K	D	K	L	K	A	K	K	G	M	L	K	G	g3868778	
900	R	K	K	D	K	T	G	K	E	K	K	D	R	D	K	E	K	D	K	M	K	A	K	K	G	M	L	K	G	g8037915	
854	-	-	-	-	-	-	-	-	K	K	R	K	E	N	E	D	-	-	-	-	-	-	-	-	-	-	-	-	-	1555118	
1020	L	G	D	M	F	R	F	G	K	H	R	K	D	D	K	I	E	K	T	G	K	I	K	I	Q	E	S	F	T	S	2582063
1020	L	G	D	M	F	R	F	G	K	H	R	K	D	D	K	M	E	K	M	G	R	I	K	I	Q	E	S	F	T	S	g3868778
930	L	G	D	M	F	R	F	G	K	H	R	K	D	D	K	I	E	K	T	G	K	I	K	I	Q	E	S	F	T	S	g8037915

FIGURE 3G

863	- - - - -	E E E R I R M K Q E Q E R I Q A K T R E F R E R Q A R E R D	- - - - -	P E R K I K K G	1555118
1050	E E E R I R M K Q E Q E R I Q A K T R E F R E R Q A R E R D	2582063			
1050	E E D R V R M K E E Q E R I Q A K T R E F R E R Q A R E R D	93868778			
960	E E E R I R M K Q E Q E R I Q A K T R E F R E R Q A R E R D	98037915			
872	F G A M - - - - -	L R Y G P - - - - -	A	1555118	
1080	Y A E I Q D F H R T F G C D D E L M Y G G V S S Y E G S M A	2582063			
1080	Y A E I Q D F H R T F G C D D E L L Y G G M S S Y D G C L A	93868778			
990	Y A E I Q D F H R T F G C D D E L M Y G G V S S Y E G S M A	98037915			
882	L K A K - - - - -	L V L I L S L L K K A H A - - - -	1555118		
1110	L N A R P Q S P R E G H M M D A L Y A Q V K K P R N S K P S	2582063			
1110	L N A R P Q S P R E G H L M D T L Y A Q V K K P R S S K P G	93868778			
1020	L N A R P Q S P R E G H M M D A L Y A Q V K K P R N S K P S	98037915			
899	- - - - -	F P R L Q P - - - - -	1555118		
1140	P V D S N R S T P S N H D R I Q R L R Q E F Q Q A K Q D E D	2582063			
1140	- D S N R S T P S N H D R I Q R L R Q E F Q Q A K Q D E D	93868778			
1050	P V D S N R S T P S N H D R I Q R L R Q E F Q Q A K Q D E D	98037915			
905	- - - - -	- - - - -	1555118		
1170	V E D R R R R T Y S F E Q P W P N A R P A T Q S G R H S V S V	2582063			
1168	V E D R R R R T Y S F E Q S W S S R P A S Q S G R H S V S V	93868778			
1080	V E D R R R R T Y S F E Q P W P N A R P A T Q S G R H S V S V	98037915			

905	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	1555118
1200	E V Q M Q R Q R Q E E R E S S Q Q A Q R Q Y S S S L P R Q S R								2582063
1198	E V Q V Q R Q R Q E E R E S F Q Q A Q R Q Y S S L P R Q S R								g3868778
1110	E V Q M Q R Q R Q E E R E S S Q Q A Q R Q Y S S S L P R Q S R								g8037915
905	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	1555118
1230	K N A S S V S Q D S W E Q N Y S P G E G F Q S A K E N P R Y								2582063
1228	K N A S S V S Q D S W E Q N Y A P G E G F Q S A K E N P R Y								g3868778
1140	K N A S S V S Q D S W E Q N Y S P G E G F Q S A K E N P R Y								g8037915
905	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	1555118
1260	S S Y Q G S R N G Y L G G H G F N A R V M - L E T Q E L L R								2582063
1258	S S Y Q G S R N G Y L G G H G F N A R V M - L E T Q E L L R								g3868778
1170	S S Y Q G S R N G Y L G G H G F N A R V M - L E T Q E L L R								g8037915
925	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	1555118
1289	Q E Q R R K E Q Q M K K Q P P S E G P S N Y D S Y K K V Q D								2582063
1287	Q E Q R R K E Q Q L K K Q P P A D G V - - - - -								g3868778
1199	Q E Q R R K E Q Q M K K Q P P S E G P S N Y D S Y K K V Q D								g8037915
926	E S Y S D D R T - - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	1555118
1319	P S Y A P P K G P F R Q D V P P S P S Q V A R L N R L Q T P								2582063
1306	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	g3868778
1229	P S Y A P P K G P F R Q D V P P S P S Q V A R L N R L Q T P								g8037915

FIGURE 3I

106010 19275260

934	-	-	-	-	-	L	S
1349	E	K	G	R	P	F	Y
1330	E	K	G	R	P	F	Y
1259	E	K	G	R	P	F	Y

1555118  
2582063  
g3868778  
g8037915

FIGURE 3J